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CENTRAL FAX CENTER Dkt. No.: 10030355-1
USSN: 10/699,281

OCT 06 2006

REMARKS

In view of the above amendments and the following remarks, the Examiner is requested to allow claims 1-13 and 21-25, the only claims pending and under examination in this application.

Claim 1 has been amended to clarify that the depurination probe feature has a depurination probe. Claim 21 has been made independent by incorporating therein the elements of Claim 14, upon which Claim 21 depended previously. Present Claim 21 recites *depurination features each having a depurination probe*. Support for this change appears throughout the specification, for example at page 13, last paragraph.

No new matter has been added.

Interview Summary

Applicants wish to thank the Examiner and his mentor for extending the courtesy of a personal interview to Applicants' representative, Richard A. Schwartz, on October 5, 2006.

Applicants' representative pointed out that in the McGall patent depurination reaction products are determined by employing cleavage conditions wherein the depurinated oligonucleotides are removed from the array. The amount of uncleaved oligonucleotides in the area where cleavage occurred is then determined. See column 9, lines 61-67 of McGall.

Contariwise, Applicants' claims recite that depurination reaction products are determined on the array surface.

This account is believed to be a complete and accurate summary of the interview as required by 37 C.F.R. § 1.133. If the Examiner believes that this summary is inaccurate or incomplete, Applicants respectfully request that the Examiner point out any deficiencies in his next communication so that Applicants can amend or supplement the interview summary.

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Claim Rejections – 35 U.S.C. § 112, second paragraph

Claim 3 was rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for the recitation of *said amount*. This rejection is respectfully traversed.

The Examiner asserted that “[i]t is unclear whether ‘said amount’ refers to ‘the amount’ of claim 1 or ‘a relative amount’ of claim 2. Claim 3 depends upon Claim 2. Therefore, one would look first to Claim 2 for antecedent basis for the phrase *said amount*. As such, the amount in question is the amount of depurination products on said surface, as recited in Claim 2.

The phrase *a relative amount* appears in Claim 3 after the phrase *said amount*, and not in Claim 2 as asserted by the Examiner. As such, the phrase *a relative amount* is not antecedent, i.e. not preceding, the phrase *said amount*, and cannot serve as antecedent basis for the phrase *said amount*.

Withdrawal of this rejection is respectfully requested.

Claim Rejections -35 U.S.C. § 102

Claims 21 and 23-25 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by McGall (US Patent No. 5,843,655). This rejection is respectfully traversed.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Present Claim 21 recites that the nucleic acid array comprises (1) a set of two or more nucleic acid depurination features each having a depurination probe and (2) a nucleic acid ligand. Contrary to the Examiner’s assertion, McGall does not disclose in the Abstract two or more nucleic acid depurination features that include at least one depurination probe.

There are no probes in McGall’s arrays that act as depurination probes, i.e. that can be used to detect directly depurination reaction products on the surface of an array. This is evident from the fact that McGall exposes an array produced *in situ* to cleavage conditions that cleave depurinated oligonucleotides and then the amount of uncleaved oligonucleotides in the area where the cleavage occurred is

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determined. In other words, the depurination reaction products in McGall are removed from the surface of the array, and not detected on the surface of the array. The Examiner is respectfully requested to point out the passage(s) in McGall that disclose depurination probes specifically.

Accordingly, McGall does not disclose identically each and every element of Applicants claims. As such, there is no anticipation.

Withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 1-13, 21 and 22 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over McGall, *supra*, in view of Weng et al. (US Patent No. 6,691,042) ("Weng"). This rejection is respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation either in the cited references themselves or in the knowledge generally available to an art worker, to modify the reference or to combine reference teachings so as to arrive at the claimed method. Second, the art must provide a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations (MPEP § 2143). The teaching or suggestion to arrive at the claimed method and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure (MPEP § 2143 citing with favor, *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)).

The Examiner acknowledged that McGall does not disclose explicitly the use of hybridization as a test condition for detecting depurination. In an effort to overcome the deficiency of McGall, the Examiner cited Weng for its alleged disclosure of detecting the presence of nucleic acids using microarrays with the use of hybridization as a test condition. Therefore, Weng does nothing to remedy the deficiency of McGall as set forth above in the rejection under § 102(b), namely Weng does not disclose probes that act as depurination probes as employed in the present claims, i.e. that can be used to detect directly depurination reaction products on the surface of an array.

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Accordingly, for at least the reason that the combination of cited documents does not teach or suggest all of the elements of Applicants' claims, there is no *prima facie* obviousness. Withdrawal of this rejection is respectfully requested.

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CONCLUSION

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone John Brady at (408) 553-3584.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078, order number 10030355-1.

Respectfully submitted,



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Date: October 6, 2006

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